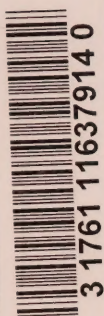


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# NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of an Application Under  
the National Energy Board Act

of



Canadian Niagara Power Company, Limited

April 1984





NATIONAL ENERGY BOARD

In the Matter of An Application Under  
The National Energy Board Act

CANADIAN NIAGARA POWER COMPANY, LIMITED

The Board, having reviewed and taken into account the report dated April 1984 of the Presiding Officer, J.A. St. Pierre, under paragraph 12 of the Act and the report of the Presiding Officer dated with regard to the cost of the project that appears to be in the public interest, hereby certifies that the report of the Presiding Officer and the report of the Board are the basis for the decision.

Dated at Ottawa, Canada, this 14th day of April 1984.

**NATIONAL ENERGY BOARD  
REASONS FOR DECISION**

In The Matter Of An Application Under  
The National Energy Board Act

*[Signature]*  
Chairman  
National Energy Board

Of

*[Signature]*  
President  
Canadian Niagara Power Company, Limited

*[Signature]*  
Chairman  
National Energy Board

CANADIAN NIAGARA POWER COMPANY, LIMITED

*[Signature]*  
President  
Canadian Niagara Power Company, Limited

*[Signature]*  
Chairman  
National Energy Board

April 1984

*[Signature]*  
Chairman  
National Energy Board

*[Signature]*  
President  
Canadian Niagara Power Company, Limited

*[Signature]*  
Chairman  
National Energy Board

*[Signature]*  
President  
Canadian Niagara Power Company, Limited

*[Signature]*  
Chairman  
National Energy Board

*[Signature]*  
President  
Canadian Niagara Power Company, Limited

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NATIONAL ENERGY BOARD

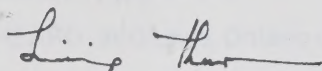
In the matter of the Application Under  
the National Energy Board Act

of

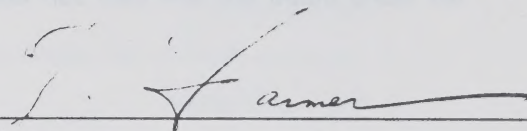
**CANADIAN NIAGARA POWER COMPANY, LIMITED**

The Board, having received and considered the report dated April 1984 of the Presiding Member, Mr. R.F. Brooks, made pursuant to Section 14 of the Act, and on the basis of that report having satisfied itself with regard to all considerations that appear to it to be relevant, hereby adopts that report as the statement of its findings and its decision on the application.

Dated at Ottawa, Canada, 3 May 1984.



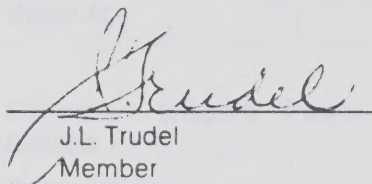
L.M. Thur  
Associate Vice-Chairman



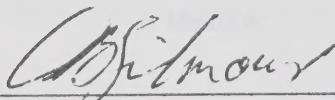
J. Farmer  
Associate Vice-Chairman



A.D. Hunt  
Associate Vice-Chairman



J.L. Trudel  
Member



A.B. Gilmour  
Member



(i)

**Recital and Appearances**

IN THE MATTER OF the National Energy Board Act and the Regulations thereunder; and

IN THE MATTER OF an application by Canadian Niagara Power Company, Limited for a licence to export interruptible energy, pursuant to Part VI of the said Act, filed with the Board under file number 1923-C10-6.

HEARD: at Ottawa, Ontario on 3 April 1984

BEFORE:

R.F. Brooks

as Presiding Member duly appointed by the Board for that purpose in accordance with Section 14 of the National Energy Board Act.

APPEARANCES:

J.H. Francis, Q.C.

Canadian Niagara Power Company, Limited

M. Hare

Ontario Hydro

A. Frame

Ministry of Energy for Ontario

L. Meagher

National Energy Board

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2. Canadian Niagara Power Company Forecast of Annual Loads and Supplies
3. Terms and conditions of Licence for the Export of Interruptible Energy (Proposed EL-161)



(iii)


### Abbreviations Used in the Report

#### Units of Measurement

Hz	hertz	(one cycle per second)
kV	Kilovolt	(1000 volts)
MW	megawatt	(1000 kilowatts)
kW.h	kilowatt hour	
GW.h	gigawatt hour	(1,000,000 kW.h)
\$	Canadian dollar unless otherwise specified	
mill	one-thousandth of a dollar (\$0.001), Canadian, unless otherwise specified.	

#### Names

Applicant	Canadian Niagara Power Company Limited
Board	National Energy Board
Canadian Niagara	Canadian Niagara Power Company Limited or the Applicant
Niagara Mohawk	Niagara Mohawk Power Corporation
St.Lawrence	St.Lawrence Power Company



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# Chapter 1

## Background

---

The Applicant, Canadian Niagara Power Company Limited, was incorporated by a Special Act of the Legislature of the Province of Ontario in 1892. It is a wholly-owned subsidiary of Opinac Investments Limited, an Ontario corporation which is a wholly-owned subsidiary of Niagara Mohawk, a corporation of the State of New York.

By agreement with the Niagara Parks Commission, the Applicant has the right to divert enough water from the Niagara River to generate power in an amount not exceeding 100,000 horsepower, which is equivalent to 74.6 MW. Canadian Niagara owns a single generating station, the Rankine 25 Hz plant, built in the Niagara Park in 1905.

Canadian Niagara has an arrangement with Ontario Hydro whereby it can yield its share of the water to Ontario Hydro. Ontario Hydro's newer generating stations can generate electricity more efficiently than the Rankine plant and, under the arrangement, Ontario Hydro gives to Canadian Niagara the amount of electricity which the water would have produced if used at Rankine, while retaining the remainder of the quantity produced for its own use.

Canadian Niagara sells 25 Hz power to a single

industrial customer, Electro Minerals Canada, formerly Canadian Carborundum, a manufacturer of abrasives located near Niagara Falls, Ontario, and also distributes 60 Hz power to residential and commercial customers in a small service area around Fort Erie. The Applicant obtains 60 Hz power for this distribution system from Ontario Hydro in exchange for 25 Hz power.

The Applicant has an agreement to sell up to 50 MW of firm power, at 60 Hz, to St. Lawrence Power Company at Cornwall, Ontario, another subsidiary of Opinac. This power is wheeled through the Niagara Mohawk system in the state of New York to Cornwall under a licence held by St. Lawrence.

A map showing the Canadian Niagara supply area and the Rankine generating station is attached as Appendix 1.

The Applicant has had contracts for the sale of power and energy to Niagara Mohawk and its predecessors for more than 50 years. In the past, these contracts have been for firm power including all the surplus power not required by Canadian Niagara's customers in Canada. The present contract is for the sale of interruptible energy only.





## Chapter 2

### Licences Held by the Applicant

---

The Applicant currently holds two export licences and one export order as follows:

- 1) EL-124, which authorizes the export of firm power and energy in quantities not exceeding for power, the lesser of 35,062 kW or the surplus after all Canadian customers have been supplied, and for energy, 130 GW.h in any consecutive twelve-month period.
- 2) EL-125, which authorizes the export of interruptible energy in a quantity not exceeding 250 GW.h in any consecutive twelve-month

period. This licence was amended by Order AO-1-EL-125 dated 17 June 1982 to change the maximum export quantity to 380 GW.h less the amount exported under EL-124.

- 3) Order ELO-175, which authorized the export of interruptible energy in a quantity not exceeding 75 GW.h between 1 April and 31 December 1983, and between 1 January and 30 September 1984.

These licences will expire on 30 September 1984.





## Chapter 3

### The Application

---

Canadian Niagara applied for a licence to export interruptible energy up to a maximum of 500 GW.h in any consecutive twelve-month period. This maximum cor-

responds to the total of 450 GW.h allowed under existing licences and orders for 1983.

The licence term requested is five years from 1 October 1984 to 30 September 1989.



## Chapter 4

### The Export Contract

---

The Applicant has an agreement with Niagara Mohawk Power Corporation, dated 12 October 1982, under which Niagara Mohawk will purchase all the available energy which is surplus to the needs of the Applicant's customers in Canada. All surplus energy is to be supplied at 25 Hz. The current export price is \$0.031 per kw.h per month (U.S.).

The contract also provides that, when convenient to do so, Canadian Niagara will wheel over its own facilities, for delivery to Niagara Mohawk, any surplus energy from Ontario Hydro or other Canadian sources. The associated wheeling charge is set at \$0.002 per kW.h per month (U.S.) and will be paid by Niagara Mohawk.

Article NINTH of the contract provides that the export price may be renegotiated at any time, on three days notice, if in the opinion of either party it does not conform with the following three criteria:

- a) The price recovers the appropriate share of costs incurred by Canadian Niagara;
- b) The price is similar to that which Canadian Niagara would charge to any Canadian customer of similar class for delivery in the Niagara Falls — Fort Erie, Ontario area; and
- c) The price will not be materially less than the least cost alternative for energy within the marketing area of Niagara Mohawk.





## Chapter 5

### The Evidence

---

The Applicant's case was that it was entitled to produce power at a daily average rate equivalent to 74.6 MW at 100% load factor. A portion of this power and the corresponding energy could not be used by its customers in Canada including St. Lawrence Power Company. The Applicant argued that the requested licence was required to allow it to dispose of this energy and should be granted as the energy exported would be surplus to foreseeable Canadian needs and the export price satisfied the Board's three price guidelines as set forth in the NEB Part VI Regulations, Paragraph 6(2)(z).

Copies of the Act of the Ontario Legislature establishing the Applicant as a company, with subsequent amendments, as well as the Applicant's agreements with the Niagara Parks Commission have been on file with the Board since 1960. Consequently, copies were not included in the application.

The Applicant provided forecasts of its power and energy requirements and surplus during the requested licence term. Appendix 2 summarizes these forecasts.

To demonstrate that the energy it proposes to export as interruptible energy would be surplus to foreseeable Canadian needs, the Applicant provided monthly forecasts of energy requirements showing surpluses in every month during the period. The Applicant testified that it offers this energy to Ontario Hydro, the only directly connected Canadian utility, which takes it on a daily basis if conditions warrant it.

To justify the export price of 31.0 mills/kW.h (U.S.) the Applicant provided evidence on the relationship between the proposed price and the Board's three price guidelines.

To show that the export price would recover its share of the costs incurred in Canada (the Board's first price guideline), the Applicant demonstrated that its average cost of generation for the year 1983 was 22.9 mills per kilowatt hour. Since the export price is 31.0 mills per kilowatt hour (U.S.) in the first year of the contract, the Applicant claimed that it would recover its costs incurred in Canada.

To demonstrate that the export price would not be less than the price to Canadians for equivalent service in related areas (the Board's second guideline)

the Applicant stated that the only other customer that could utilize the surplus energy is Ontario Hydro. The surplus energy is offered to Ontario Hydro prior to export and it does from time to time purchase such energy at a price identical to that charged to Niagara Mohawk.

Regarding the requirement that the export price would not result in prices in New York State being materially less than the least cost alternative for power and energy at the same location (the Board's third price guideline), the Applicant originally stated that the primary purpose of the sale of 25 Hz energy covered by the licence application is to supply Niagara Mohawk's customers for this class of energy, all of which are located in the area adjacent to the Cities of Buffalo and Niagara Falls in New York State.

Niagara Mohawk has no 25 Hz generation of its own and there is none on any of the adjacent power systems within the United States. The Applicant claimed that there are no other systems in the United States which can supply 25 Hz energy to Niagara Mohawk and consequently the third price guideline was not applicable.

In response to questions in this area, the Applicant clarified its earlier statements. The exported energy would supply Niagara Mohawk's 25 Hz system first and any energy in excess of this load would be passed on to Niagara Mohawk's 60 Hz system via its frequency changers. Niagara Mohawk considers that its alternative to purchasing this energy would be to generate an equal amount from its own generation which is on its 60 Hz system and can supply the 25 Hz load from the 60 Hz system through its frequency changers. The export price had been arrived at by calculations based on a weighted average of avoided costs of generation during on-peak and off-peak hours in proportion to the amount of on-peak and off-peak energy delivered into the Niagara Mohawk system. The cost calculated in this way was 34.0 mills/kW.h (U.S.); the export price was set at 31.0 mills/kW.h (U.S.) in order to provide some saving to Niagara Mohawk's customers.

When asked why there was no application for renewal of its firm power export licence, the Applicant stated that the accounting problems associated with

the sale of firm power were found to be too complicated and that it had been decided to sell on an energy basis but with an improved pricing arrangement which would also give added value to sales made during Niagara Mohawk's on-peak periods. Prior to this change, interruptible energy had been priced

using the traditional split savings formula  $((\text{cost value})/2)$ .

Finally, the Applicant claimed that, since the energy for export would be generated by existing hydroelectric generating facilities, there would be no environmental impact from such generation.



## Chapter 6

### Interventions

---

Interventions were filed by Ontario Hydro and the Ministry of Energy for Ontario. Neither intervenor opposed the application.

Ontario Hydro argued that the condition ensuring Canadian priority in existing licence EL-125 should

be included in any future licences to ensure that the pricing of all exports would be just and reasonable. If these terms were excluded energy could be sold to the United States at a price which could have produced an economic benefit if purchased by Ontario Hydro.



## Chapter 7

### Recommended Disposition

---

As Presiding Member appointed by the National Energy Board under Section 14 of the Act, I have given careful consideration pursuant to Section 83 of the Act to all the evidence and submissions presented to me concerning this application, taking particular note of any new considerations arising since the Applicant's existing licences were issued. Having satisfied myself on all matters which appear to me to be relevant, I recommend that the Board grant the application.

Appendix 2 demonstrates that after the needs of the Applicant's own customers and those of St. Lawrence are satisfied, a quantity of surplus energy will remain in every year of the requested licence term. The Applicant would offer its surplus energy to Ontario Hydro, the only directly-connected Canadian utility, on the same terms and conditions as would apply to a sale to Niagara Mohawk; only that energy not taken by Ontario Hydro would be exported.

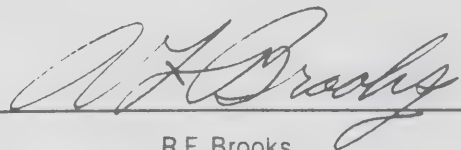
I am satisfied that the proposed price of 31.0 mills per kilowatt hour (U.S.) pursuant to Article THIRD of the agreement between Canadian Niagara and Niagara Mohawk dated 1 October 1982 is just

and reasonable in relation to the public interest. The difference between this price and the avoided cost for Niagara Mohawk of 34.0 mills/kW.h (U.S.) is a necessary incentive to make the purchase attractive to Niagara Mohawk. Not only does the price meet the Board's three guidelines but, pursuant to Article THIRD of the agreement, may be revised at any time to satisfy three specified criteria as set forth in Chapter 4 of this report which are almost identical to the Board's guidelines. The licence should, nevertheless, be conditioned to require the Board's approval of any price change as has been done in the past.

Accordingly, I recommend that the Board issue to Canadian Niagara a licence to export interruptible energy to Niagara Mohawk. Suggested terms and conditions for the licence are set out in Appendix 3.

The licence would run from 1 October 1984 to 30 September 1989.

I submit this, my report, to the National Energy Board in accordance with Section 14 of the Act. I respectfully recommend that it be adopted as the Board's own findings and decision on the application, as allowed under the said Section.



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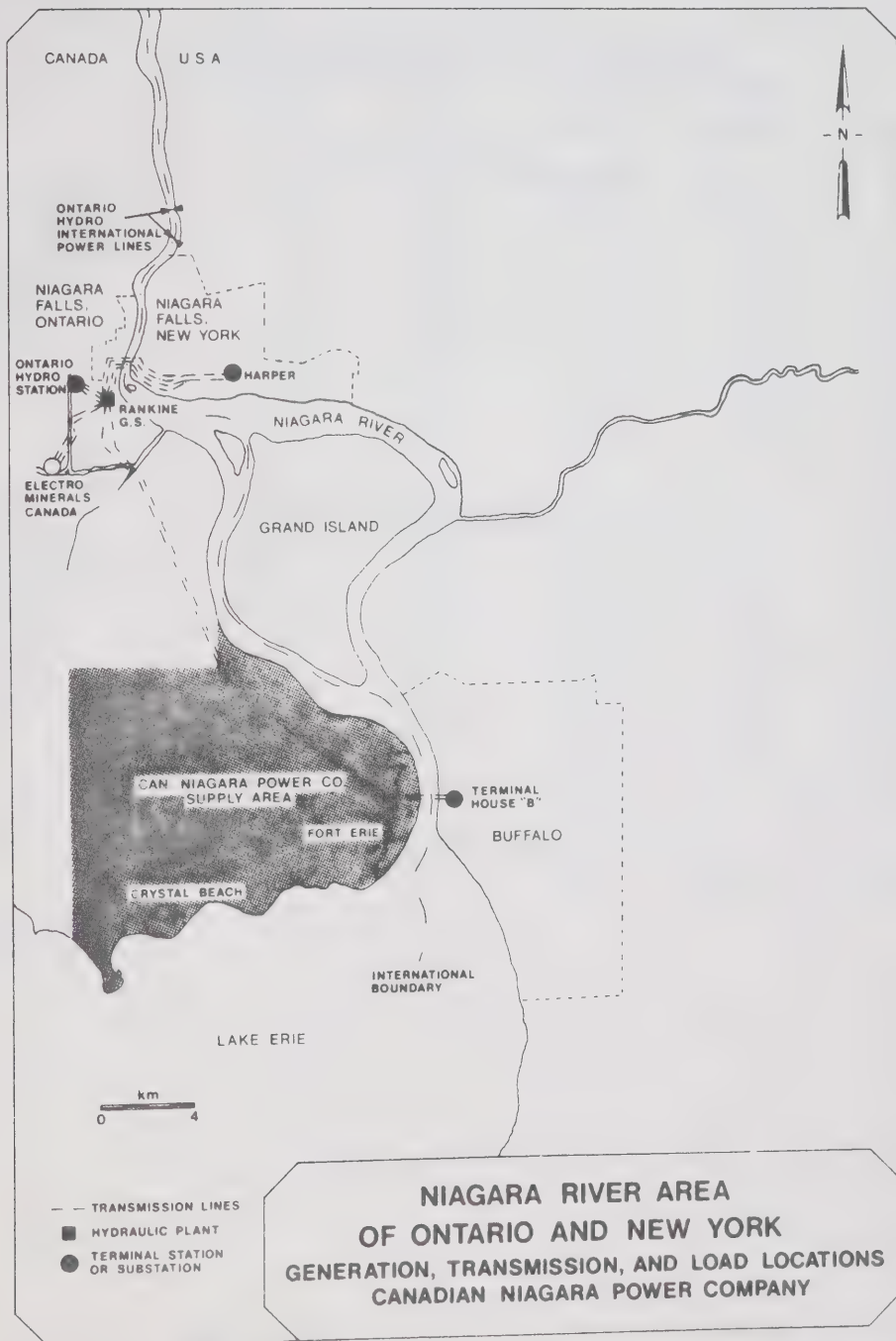
R.F. Brooks  
Presiding Member

Ottawa, Canada  
April, 1984





# Appendix 1



NATIONAL ENERGY BOARD, APRIL 1984

DWG. No. 1334-E



## Appendix 2

### CANADIAN NIAGARA POWER COMPANY FORECAST OF ANNUAL LOADS AND SUPPLIES

		1984	1985	1986	1987	1988	1989
<b>FIRM POWER — megawatts</b>							
LOADS—	Domestic	10.0	10.2	10.4	10.7	11.0	11.4
	Commercial	8.8	9.1	9.2	9.4	9.7	10.1
	Industrial	9.7	9.9	10.0	10.3	10.7	11.1
	EMC (1)	1.0	1.0	1.0	1.0	1.0	1.0
	SLP (2)	42.0	41.0	41.0	40.0	39.0	38.0
	Losses	3.0	3.0	3.0	3.0	3.0	3.0
		<b>74.5</b>	<b>74.2</b>	<b>74.6</b>	<b>74.4</b>	<b>74.4</b>	<b>74.6</b>
SUPPLY—		74.6	74.6	74.6	74.6	74.6	74.6
<b>FIRM ENERGY — gigawatt hours</b>							
LOADS—	Domestic	67.2	68.5	69.9	71.3	72.7	74.1
	Commercial	59.1	60.3	61.3	62.7	64.0	65.2
	Industrial	39.4	40.1	41.0	41.8	42.6	43.5
	EMC (1)	4.4	4.4	4.4	4.4	4.4	4.4
	SLP (2)	102.5	121.0	138.6	156.7	174.1	194.8
	Losses	24.0	24.0	24.0	24.0	24.0	24.0
		<b>296.6</b>	<b>318.3</b>	<b>339.3</b>	<b>360.9</b>	<b>381.8</b>	<b>406.0</b>
SUPPLY—		649.3	647.5	647.5	647.5	649.3	647.5
<b>RESIDUAL ENERGY — gigawatt hours</b>							
SURPLUS—		352.7	329.2	308.2	286.6	267.5	241.5

(1) EMC - Electro Minerals Canada

(2) SLP - St. Lawrence Power Company





## Appendix 3

### TERMS AND CONDITIONS OF LICENCE FOR THE EXPORT OF INTERRUPTIBLE ENERGY

(Proposed EL-161)

1. The term of this licence shall commence on the later of:
  - a) 1 October 1984, or
  - b) the day on which the licence is approved by the Governor in Counciland shall end on 30 September 1989.
2. The classes of inter-utility export transfer authorized hereunder are sale and exchange transfers of interruptible energy.
3. The energy to be exported hereunder shall be transmitted over the international power lines of the Licensee for which the Board has issued Certificates of Public Convenience and Necessity Nos. EC-22 and EC-23 and/or over any of the international power lines of Ontario Hydro for which the Board has issued Certificates of Public Convenience and Necessity.
4. The quantity of energy that may be exported hereunder shall not exceed 500 GWh in any consecutive 12-month period throughout the term of the licence.
5. The Licensee shall not export energy hereunder whenever and to whatever extent such energy is required to supply:
  - a) the Licensee's firm load requirements, or
  - b) any firm load of Ontario Hydro whenever that utility lacks generating capacity to meet such firm load, or
  - c) Ontario Hydro when that utility wishes to buy part or all of the energy at the export price, adjustments having been made corresponding to any differences in the cost on the Licensee's system of delivering the energy to the said Canadian electrical utility instead of to the export customer.
6. The price to be charged by the Licensee for exports made hereunder shall not be less than the greater of
  - a) the price prescribed in Article THIRD of the agreement dated 1st October 1982, between the Licensee and Niagara Mohawk Power Corporation; or
  - b) the price as determined in accordance with Article NINTH of the agreement referred to in subcondition 6(a)
7. The Licensee shall, prior to 1 October of each year in the term of this licence, or prior to such later date as the Board upon application of the Licensee may fix, submit to the Board for its approval a statement of the export price proposed to be charged for the following calendar year, together with a statement demonstrating that such price complies with the requirements of Condition 6.
8. The price specified in accordance with Condition 7, upon being approved by the Board, shall be the minimum price for energy sold under this licence throughout the following calendar year, unless otherwise directed by the Board.
9. The Licensee shall not, without the prior approval of the Board, amend, terminate or enter into any agreement in substitution for or in addition to the agreement referred to in Subcondition 6(a).
10. The Licensee, within 15 days after the end of each month during the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month information pertaining to transactions under the Licence.







